

Docket No. (AMENDED): 60126-002US
Application No. 10/633,629
Page 2 of 10

IN THE CLAIMS

1. (currently amended) A method for improving the accuracy of optical detection in a quantitative polymerase chain reaction ~~detecting a target nucleic acid in a sample~~, comprising ~~the step of amplifying the target nucleic acid using a polymerase chain reaction~~, wherein said carrying out said polymerase chain reaction is ~~carried out~~ in the presence of an effective amount of at least one anti-foam reagent that does not substantially inhibit the action of the polymerase, and detecting the product of said polymerase chain reaction.

2. (canceled)

3. (Original) The method according to claim [[2]] 1, wherein said polymerase chain reaction is a reverse transcriptase polymerase chain reaction

4. (canceled)

5. (Withdrawn amended) The method according to claim [[4]] 1, comprising detecting said product using a probe labeled with a detectable label.

6. (Withdrawn) The method according to claim 5, wherein said detectable label is a fluorescent dye.

7. (Currently amended) The method according to claim [[4]] 1, comprising detecting said product using a fluorescent nucleic acid-binding dye.

8. (Currently amended) The method according to ~~any of~~ claim 1, wherein said polymerase chain reaction is carried out in the presence of an effective amount of at least two anti-foam reagents.

9. (Original) The method according to claim 1, wherein said anti-foam agent is selected from the group consisting of 1520-US, AF, FG-10, O-30, SE-15, and Antifoam B.

Docket No. (AMENDED): 60126-002US

Application No. 10/633,629

Page 3 of 10

10. (Original) The method according to claim 8, wherein said at least two anti-foam reagents are selected from the group consisting of 1520-US, AF, FG-10, O-30, SE-15, and Antifoam B.
11. (Currently amended) A composition for amplifying a target nucleic acid, comprising
- (a) at least one primer molecule that hybridizes to the target nucleic acid;
 - (b) nucleotide triphosphates
 - (c) a thermostable DNA polymerase
 - (d) a detergent; ~~and~~
 - (e) an effective amount of at least one anti-foam reagent that does not substantially inhibit the action of said thermostable DNA polymerase, and
 - (f) a probe labeled with a detectable label.
12. (Original) A composition according to claim 11, comprising at least two anti-foam reagents.
13. (Original) A composition according to claim 11 wherein said anti-foam agent is selected from the group consisting of 1520-US, AF, FG-10, O-30, SE-15, and Antifoam B.
14. (Original) The composition according to claim 12, wherein said at least two anti-foam reagents are selected from the group consisting of 1520-US, AF, FG-10, O-30, SE-15, and Antifoam B.
15. (Original) The method according to claim 1 wherein said polymerase chain reaction is carried out in a sample chamber of a device comprising a plurality of said sample chambers.
16. (Original) The method according to claim 15, wherein each of a plurality of said sample chambers of said device contains reagents suitable for detecting a target nucleic acid.

Docket No. (AMENDED): 60126-002US
Application No. 10/633,629
Page 4 of 10

17. (Original) The method according to claim 16, wherein a plurality of sample chambers of said device contains reagents suitable for detecting different target nucleic acids.

18. (Original) The method according to claim 17, further comprising detecting the amplified products in said sample chambers by optical detection.

19. (Withdrawn) The method according to claim 18, comprising detecting said amplified products using a probe labeled with a detectable label.

20. (Withdrawn) The method according to claim 19, wherein said detectable label is a fluorescent dye.

21. (Original) The method according to claim 18, comprising detecting said amplified products using a fluorescent nucleic acid-binding dye.

22. (New) The method according to claim 1, wherein said polymerase chain reaction is a hot start polymerase chain reaction.